

current US Fish and Wildlife Service Standard Manatee Conditions would be implemented during maintenance dredging. This would ensure manatee protection should any wander into the work area during construction.

c. Sea turtles. There would be no impacts to sea turtles from the dredging should the equipment to be used is other than a hopper dredge. If a hopper dredge is used there could be impacts to sea turtles in the area. These impacts would be reduced by the use of the new deflector draghead, monitoring the intake and restricting its use to the winter hopper dredging window (1 December to 15 April). Sea turtles nest along the beach. During dredging a placement along the beach sea turtles could be affected. In order to minimize this impact, a nest monitoring and relocation program would be implemented during the sea turtle nesting season.

d. Shortnose sturgeon. Dredging should not impact this species as it prefers the emergent salt marsh vegetation along the waterway. There would be no impacts from beach disposal on this species.

4.6.3. Social:

a. Recreation: Recreational boat traffic would experience temporary delays due to construction traffic and congestion and minor temporary impacts to recreational beach activities would occur during beach placement. However, recreational boat traffic along the AIWW would benefit from the increased navigable capacity of the channel and recreational beach activities would benefit from the increased beach area as a result of the dredging and beach placement.

b. Aesthetics. Since the only aesthetic impacts would result from construction activities (vessel traffic and noise), all impacts to the aesthetics of the area would end following project completion and no permanent impacts would occur.

4.6.4. Economic: Any expansion to the movement of commodities through the AIWW in the vicinity of Sawpit Creek may be a stimulus for attracting new business and small industry to the area including commercial interests directly or indirectly associated with charter and head boats and commercial fisheries. This could possibly increase employment in the area. Transportation cost savings may be derived through the use of deeper draft vessels and from potential new commodity movements which would utilize the AIWW.

4.6.5. Cumulative effects: Cumulative effects may include benefits to the economy of the area through expanded vessel use of the waterway and increased migratory bird habitat and sea turtle nesting habitat.

4.6.6. Unavoidable effects: Temporary degradation in water quality at the dredging sites will occur. The material to be dredged is predominately sand and adverse impacts should be short-term and minor.

4.6.7. Irreversible and Irretrievable Resource Commitments: Some loss of benthic organisms at the dredging sites will occur. However, this impact will be minimized by the repopulation of various benthic organisms at the dredged sites.

5.0. LIST OF PREPARERS

<u>NAME</u>	<u>DISCIPLINE</u>	<u>EXPERIENCE</u>	<u>ROLE IN PREPARING EA</u>
William J. Fonferek	Biologist	18 years environmental impacts assessment	O&M NEPA Coordinator, Environmental Impact Assessment, Endangered Species Coordination
Janice E. Adams	Archeologist	8 years experience NEPA documentation,	Cultural Resources Analysis
Paul C. Stevenson	Landscape Architect	7 years landscape architect, field and design work	Aesthetic and Recreational Resource Analysis
Glen Schuster	Environmental Engineer	15 years professional engineer	Water Quality Impacts
Paul M. DeMarco	Biologist	1 year experience NEPA documentation	Environmental Impact Assessment, Endangered Species Coordination

6.0 CONSULTATION WITH OTHERS - PUBLIC INVOLVEMENT PROCESS

6.1 PUBLIC NOTICE. A Public Notice on the proposed maintenance dredging was circulated 9 February 1995. The notice, list of addressees, and comment letters appear in Appendix V.

6.2. The Florida Division of Historical Resources responded to the public notice by letter dated 28 April 1995 requesting additional information concerning the effects of the construction and use of two of the disposal areas DU2 and D/A-C.

RESPONSE: Ms Janice Adams contacted their office with the information on 9 May 1995.

6.3. Mr. Chris Western, Jacksonville Electric Authority contacted Mr. Don Fore expressing concerns about dredging the AIWW in the vicinity of their power line crossing near the Okefenokee Swamp.

RESPONSE: All utility crossings will be documented on the plans and specifications so that care can be taken around them.

6.4. The Florida Division of Historical Resources responded by letter dated 12 May 1995 stating that the based on the information provide from an earlier request has satisfied their concerns.

6.5. Mr. John Stambaugh, Florida Park Service responded to the public notice by telephone on 8 March 1995 requesting a copy of the notice.

RESPONSE: A copy was sent to Mr. Stambaugh.

6.6. An unidentified resident of Shark Road contacted Mr. Fore requesting information on the dredging and disposal. She wanted to know what type of material was going into the DA.

RESPONSE: She was told it was dredged material.

7.0. INDEX.

aesthetics 1, 6, 8, 10, 13, 14, 16, 18
affected environment 3, 8
AIWW 1, 3, 4, 6, 8, 10-14, 16-18, 20
alternative comparison 3, 5
alternative formulation 3
alternatives 3
authority 1, 20
beach placement 3-5, 7, 10, 12, 14, 16-18

consultation with others 20
 cultural resources 1, 5, 8, 12, 13, 15, 17, 19
 cumulative effects 11, 13, 14, 16, 18
 decision to be made 1, 8
 description of alternatives 3
 economics 1, 6, 8, 10
 eliminated alternatives 3
 environmental consequences 3, 11
 irreversible and irretrievable resource commitments 11, 13, 15, 16, 18
 list of preparers 19
 manatees 1, 5, 8, 9, 12, 14, 15, 17
 methodology 1
 navigation 1, 3, 6-8, 10, 11, 20
 no action alternative 3, 5, 11
 permits required 1
 preferred alternative 3, 8
 purpose of and need for action 1
 recreation 1, 7, 8, 10-12, 14, 16, 17
 references 20
 relevant issues 1, 8, 11
 Sawpit 1, 4, 10, 13, 14, 16, 18
 sea turtles 1, 5, 8, 10, 12, 14, 15, 17
 shortnose sturgeon 1, 5, 9, 10, 12, 14, 16, 17
 unavoidable effects 11, 13, 15, 16, 18
 water quality 1, 5, 8, 11-13, 15-19
 wetlands 9, 10

8.0. REFERENCES.

Florida Department of Natural Resources. 1989. *Florida Rivers Assessment*.

Florida Inland Navigation District. 1986. *Long-Range Dredged Material Management Plan for the Intracoastal Waterway in Northeast Florida*.

U.S. Fish and Wildlife Service. 1987. *Endangered and Threatened Species of Southeastern United States. Region 4, Atlanta, Georgia*.

U.S. Army Engineer Waterways Experiment Station. April 1978. Dredged Material Research Program Technical Report D-78-14. *Colonial Bird Use and Plant Succession of Dredged Material Islands in Florida. Vol. I: Sea and Wading Bird Colonies*.

U.S. Army Engineer Waterways Experiment Station. December 1978. Dredged Material Research Program. *Development and Management of Avian Habitat on Dredged Material Islands.*

U.S. Army Engineer Waterways Experiment Station. December 1978. Dredged Material Research Program. *An Introduction to Habitat Development on Dredged Material.*

APPENDIX I

COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

1. National Environmental Policy Act of 1969, as amended. Environmental information on the project has been compiled and the draft Environmental Assessment, was made available for public review through public notice in compliance with 33 CFR Parts 335-338. These regulations govern the Operations and Maintenance of US Army Corps of Engineers Civil Works Projects involving the Discharge of Dredged or Fill Material into Waters of the US or Ocean Waters. This public coordination and environmental impact assessment complies with the intent of NEPA. The process will fully comply with the Act once the Findings of No Significant Impact has been signed by the District Commander.

2. Endangered Species Act of 1973, as amended. The National Marine Fisheries Service (NMFS) has issued a Regional Biological Opinion (RBO) for hopper dredging for the southeastern United States. The RBO states that unrestricted dredging in the southeast would jeopardize the recovery of the Kemp's ridley and green sea turtles. NMFS also stated that if the project is conducted in compliance with the reasonable and prudent measures, consultation requirements have been satisfied. In summary, the requirements include a prohibition against the use of hopper dredges except during a "winter window" which is a period from December through 15 April. The US Fish and Wildlife Service was consulted by letter dated 2 December 1994 requesting a concurrence in a "No Effects" determination for the impacts on manatees and Biological Opinion based on our "May Effects" determination on nesting sea turtles from beach placement of dredged material. The USFWS responded by letter dated 18 July 1995. The BO requires:

- a. A nest monitoring and relocation program from 1 April through 30 October.
- b. Tilling if the beach becomes compacted.
- c. Landscaping should escarpments form.
- d. Only beach quality sand be placed on the beach.
- e. Low-intensity and shielded lighting be used.

This project was fully coordinated under the Endangered Species Act; therefore, this project is in full compliance with the Act.

3. Fish and Wildlife Coordination Act of 1958, as amended. The project has been coordinated with the USFWS during the public notice period. No adverse

comments were received. Therefore, due to the non-response of the USFWS, it is assumed it is acceptable and would comply with the Act.

4. National Historic Preservation Act of 1966, as amended (PL 89-665). An archival and literature review, including a review of the current National Register of Historic Places listing and consultation with the Florida State Historic Preservation Officer (SHPO), was conducted to determine if significant cultural resources are present in the project area. In a letter dated 28 April 1995, the SHPO responded to the public notice indicating that potentially two archeological sites could fall within two of the disposal areas. Ms. Janice Adams, CESAJ-PD-ER contacted the SHPO with information about these previously constructed sites and studies that had been performed. By letter dated 12 May 1995, the SHPO rescinded its earlier letter. Therefore no further investigations are required to meet the requirements of the National Historic Preservation Act (PL 89-665). Therefore, the project would be in compliance.

5. Clean Water Act of 1972, as amended.

5.1. Section 401. A Water Quality Certification was issued by the Florida Department of Environmental Regulation for a 10-year period by Permit No. 16,452464629 dated 4 June 1996.

5.2. Section 404. The purpose of Section 404(b)(1) of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the waters of the United States through the control of discharges of dredged or fill material. Controls are established through restrictions placed on the discharges in Guidelines published in 40 CFR 230. The return water discharge is subject to evaluation pursuant this Section.

5.1. Restrictions on the Discharge: Section 230.10 requires that the discharge meet certain restrictions in order to be authorized. The project is to be evaluated and comply with the following restrictions: (a) there would be no other practicable alternatives to the proposal that would have less adverse impacts on the aquatic environment, (b) that the discharge would not adversely impact water quality, violate State water quality standards, toxic effluent standards, or jeopardize the continued existence of a threatened or endangered species as identified under the Endangered Species Act, (c) the discharge would not cause or contribute to the significant degradation of waters of the United States, or (d) the project would be designed in such a manner as to minimize to the extent possible the adverse impacts on the aquatic environment.

5.2. Initial Evaluation: An evaluation of the dredged material was conducted in accordance with Part 230.61 (Appendix III). The impacts are addressed above and are primarily related to minor increases in turbidity levels adjacent to the disposal

area from the return water and in the surf zone. Since there would be no other practicable alternatives to the proposal, the adverse impacts have been minimized to the extent possible, and no other restrictions have been violated, and, consequently, the proposed work would comply with the restrictions in Section 230.10. In addition, there is no indication that the return water from the dredged material to be used for the project would be contaminated above background levels. Therefore, the dredged material is designated as a Category 1 discharge and, in accordance with Part 230.63(a), no testing of chemical-biological interactive affects is required.

5.3 Factual Determination: Based on the probable impacts addressed above, compliance with the restrictions, and all other information concerning the fill materials to be used, the proposed work would comply with the Guidelines and the intent of Section 404(b)(1) of the Clean Water Act.

6 Clean Air Act of 1972, as amended. No air quality permits will be required for this project. Therefore, this Act would not be applicable.

7 Coastal Zone Management Act of 1972, as amended. The project has been evaluated in accordance with Section 307 of the Coastal Zone Management Act. It has been determined that the project would have no unacceptable impacts and would be consistent with the Florida Coastal Management Plan (Appendix III). In accordance with the 1979 Memorandum of Understanding and the 1983 Addendum to the Memorandum concerning acquisition of water quality certifications and other State of Florida authorizations, the preliminary Environmental Assessment and Section 404(b)(1) Evaluation have been submitted to the State in lieu of a summary of environmental impacts to show consistency with the Florida Coastal Zone Management Plan.

8 Farmland Protection Policy Act of 1981. No prime or unique farmland will be impacted by implementation of this project. This act is not applicable.

9 Wild and Scenic River Act of 1968, as amended. No designated Wild and Scenic river reaches will be affected by project related activities. This act is not applicable.

10 Marine Mammal Protection Act of 1972, as amended. Incorporation of the safe guards used to protect manatees during dredging and disposal operations will be implemented during construction, therefore, this project is in compliance with the Act.

11 Estuary Protection Act of 1968. No designated estuary will be affected by project activities. This act is not applicable.

12 Federal Water Project Recreation Act, as amended. There is no recreational development proposed for maintenance dredging or disposal. Therefore, this Act does not apply.

13 Resource Conservation and Recovery Act of 1976, (PL 94-580; 7 U.S.C. 100, et seq. This law has been determined not to apply as there are no items regulated under this act being disposed of or affected by this project.

14 Toxic Substances Control Act of 1976, (PL 94-469; U.S.C. 2601, et seq. This law has been determined not to apply as there are no items regulated under this act being disposed of or affected by this project.

15 Migratory Bird Treaty Act. The work has been evaluated pursuant to the Migratory Bird Treaty Act. A Migratory Bird Protection Policy has been prepared to address protecting migratory bird nesting within the Atlantic Intracoastal Waterway. This Plan has been previously coordinated with the US Fish and Wildlife Service, the Jacksonville Port Authority, the Florida Inland Navigation District, the Audubon Society and the Florida Game and Freshwater Fish Commission. As part of the Policy, conditions will be incorporated into the Plans and Specifications to protect the birds during the nesting season (Appendix II). This plan would insure no adverse impacts on nesting migratory birds in compliance with the Act.

16 E.O. 11990, Protection of Wetlands. No wetlands will be affected by project activities. This project is in compliance with the goals of this Executive Order.

16 E.O. 11988, Floodplain Management. No activities associated with this project will take place within a floodplain, therefore this project is in compliance with the goals of this Executive Order.

APPENDIX II

ENDANGERED SPECIES CONSULTATION

December 2, 1994

Planning Division
Environmental Branch

Mr. David J. Wesley
Field Supervisor
U.S. Fish and Wildlife Service
6620 Southpoint Drive South
Jacksonville, Florida 32216

Dear Mr. Wesley:

This is in reference to the proposed maintenance dredging of the Atlantic Intracoastal Waterway (AIWW), Fernandina Harbor to the St. Johns River, Florida, in the vicinity of Sawpit Creek in lower Nassau and upper Duval County, Florida (see enclosure). Shoal material is to be dredged from cuts 11, 12, 20, 24, 25, 26, and 27 (AIWW mile 717 to mile 738.9) in order to restore project depths of 12' + 2' allowable overdepth. Dredged material is to be placed in the FIND Northeast Black Hammock Island Diked Upland Disposal Area DA-1 in Duval County, Florida, and/or placed on Amelia Island Beach from the mouth of Nassau Sound and extending 4000' north if the dredged material is suitable.

We have made a "No Effects" determination concerning the impacts of the proposed dredging and disposal on the Florida manatee (*Trichechus manatus latirostris*) and the short-nose sturgeon (*Acipenser brevirostrum*). In addition, we will place the standard special conditions in the Plans and Specifications to protect the manatees should they wander into the construction area.


We have made a "May Effect" determination concerning the impacts of the proposed dredging and beach disposal on the following four species of sea turtles:

Loggerhead.....	<i>Caretta caretta</i>
Green.....	<i>Chelonia mydas</i>
Leatherback.....	<i>Dermochelys coriacea</i>
Hawksbill.....	<i>Eretmochelys imbricata</i>

Pursuant to Section 7 of the Endangered Species Act, we are asking for your concurrence in the "No Effects" determination concerning the impacts of the proposed dredging and disposal on the Florida manatee and the short-nose sturgeon. I have not included a Biological Assessment because of previous extensive

coordination on impacts of beach placement. Please provide your biological opinion based on the information you have.

Sincerely,

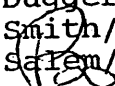

A. J. Salem
Chief, Planning Division

Enclosures

Copies Furnished:

Mr. Patrick Rose, Office of Protected Species, Florida Department
of Environmental Protection, 3900 Commonwealth Boulevard, Mail
Station 245, Tallahassee, Florida 32399
Mr. Charles A. Oravetz, National Marine Fisheries Service,
Southeast Regional Office, 9450 Koger Boulevard, St. Petersburg,
Florida 33702

bcc:
CESAJ-CO-ON
CESAJ-DP

DeMarco/CESAJ-PD-ES/wbd *all*
Fonferek/CESAJ-PD-ER
Dugger/CESAJ-PD-ER
Smith/CESAJ-PD-E
 Salem/CESAJ-PD

L:\GROUP\PDE\SAWPIT\WESLEY



United States Department of the Interior

FISH AND WILDLIFE SERVICE
6620 Southpoint Drive, South
Suite 310
Jacksonville, Florida 32216-0912

JUL 18 1995

Mr. A. J. Salem
Chief, Planning Division
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, Florida 32232-0019

FWS Log No: 4-1-95-111c

Dear Mr. Salem:

This represents the Biological Opinion of the U.S. Fish and Wildlife Service (Service) in accordance with Section 7 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*). This Biological Opinion satisfies the consultation requirements of Section 7 (a)(2) of the Act. It does not address the requirements of other environmental statutes, such as the National Environmental Policy Act. A complete administrative record of this consultation is on file in this office.

PROJECT DESCRIPTION

The Corps proposes to maintenance dredge the Atlantic Intracoastal Waterway (ICW), Fernandina Harbor to the St. Johns River in the vicinity of Sawpit Creek in lower Nassau and upper Duval County. Dredged depth will be 12 feet plus 2. Dredged material is to be placed in the Florida Inland Navigation District's Northeast Black Hammock Island Dike Upland Disposal Area DA-1 in Duval County or placed on Amelia Island beach from the mouth of Nassau Sound and extending 4,000 feet north. This reach of beach lies within Amelia Island State Recreation Area.

CONSULTATION HISTORY

The Corps evaluated the impact this project would have on the manatee (*Trichechus manatus*), and short-nose sturgeon (*Acipenser brevirostrum*), and determined no effect. The Corps stated they would place the standard manatee construction precautions in the Plans and Specifications. They also evaluated the impact this project would have on the loggerhead (*Caretta caretta*), green (*Chelona mydas*), leatherback (*Dermochelys coriacea*) and hawksbill (*Eretmochelys imbricata*) sea turtles, and determined may affect.

BIOLOGICAL BACKGROUND

The Service believes the maintenance dredging of the ICW is not likely to adversely affect the manatee. The Corps stated that the special manatee precautions will be conditions in the contract.

The short-nose sturgeon falls under the jurisdiction of the National Marine Fisheries Service. We recommend the Corps contact that agency regarding Section 7 consultation.

The loggerhead sea turtle is the most common nesting sea turtle in Florida. Throughout Florida, there are approximately 49,000 nests per year. Primary nesting sites on Florida's east coast can be found from Brevard County south.

In Nassau County, turtle nest surveys are conducted by volunteers and by state biologists. From 1989 to 1991, 0.7 nest/km were recorded on the recreational area. In 1994, 0.4 nest/km, were recorded, and as of July 12, 1995, 1 nest has been documented on the recreation area.

Leatherback turtles nest in small numbers in Florida. There have been no documented nests on Amelia Island.

Green sea turtles nest on Florida beaches more commonly than the leatherback sea turtle. The majority of green sea turtle nests are found from Brevard County south. In 1994 and 1995, no green turtle nests were recorded on the recreation area.

There are no documented hawksbill turtle nests this far north.

BIOLOGICAL OPINION

After review of the best available scientific and commercial information, it is our Biological Opinion that the project is not likely to jeopardize the continued existence of the loggerhead, leatherback or green or hawksbill sea turtles.

INCIDENTAL TAKE

Section 9 of the Endangered Species Act, as amended (Act), prohibits the taking of listed species without a special exemption. Taking is defined as to mean harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or to attempt to engage in any such conduct. "Harm" and "harass" are further defined in Service regulations (50 CFR 17.3). "Harass" is defined as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding or sheltering. "Harm" is defined as an act which actually kills or injures wildlife. Such an act may include significant habitat

modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

Under the terms of Section 7(b)(4) and 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement. The measures described below are nondiscretionary, and must be implemented by the agency so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, in order for the exemption in Section 7(o)(2) to apply.

The Federal agency has a continuing responsibility to regulate the activity that is covered by this incidental take statement. If the agency fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of Section 7(o)(2) may lapse.

The Service has reviewed the biological information for this species, information presented by the applicant's consultants, and other available information relevant to this action. Based on our review incidental take is anticipated for all turtle nests that are missed by a nest relocation program within the project boundary, and for failed nesting attempts as a result of the potential formation of an escarpment or sand compaction.

When providing an incidental take statement the Service is required to give reasonable and prudent measures it considers necessary or appropriate to minimize the take along with terms and conditions that must be complied with to implement the reasonable and prudent measures. Furthermore, the Service must also specify procedures to be used to handle or dispose of any individuals taken. The Service believes the following reasonable and prudent measures are necessary and appropriate to reduce take:

1. If the project commences during the sea turtle nesting season (April 1 through October 30) then the applicant will initiate a sea turtle nest relocation program 60 days prior to work or April 1, whichever is sooner, within the project area.
2. Nourished beaches will be tilled if sand compaction occurs.
3. Corrective action on the beach will be initiated if an escarpment develops which inhibits turtles from nesting.
4. Only beach quality sand suitable for sea turtle nesting, successful incubation and hatchling emergence shall be used on the project site.

To implement the above reasonable and prudent measures, the Service has outlined the following terms and conditions for incidental take. In accordance with the Interagency

Cooperation Regulation (50 CFR 402), these terms and conditions must be complied with to implement the reasonable and prudent measures for incidental take:

1. The applicant will initiate a sea turtle nest relocation program within the project area. Only those nests which will be affected by construction activities are required to be relocated. Turtle monitoring activities shall include performance of daily visual inspections of the beach at sunrise by personnel with prior experience and training in nest survey and relocation and procedures, pursuant to Rule 16R-1, F.A.C., permitted by the Florida Department of Environmental Protection (DEP). Any nests discovered shall be relocated between sunrise and 0900 hours each day to a nearby self-release beach site, in a secure setting where artificial lighting will not interfere with hatchling orientation. Relocation site(s) shall be approved by DEP prior to use, and may include a non-beach hatchery if appropriate. If necessary, self releasing screen or aboveground individual cages shall be used on relocated nests to exclude predators. Nest relocation activity will cease upon completion of the beach nourishment activity.

2. Nourished beaches will be tilled if compaction occurs. Compaction will be monitored immediately prior to the sea turtle nesting season (April 1). A minimum of 30 compaction measurement stations will be established along the nesting area of the beach, above mean high water to the base of the primary dune. At each measurement station, sand compaction measurements will be taken at 6, 12, and 18 inches depths. Measurement stations will be systematically distributed along the beach to provide coverage for the nourished beach. If the average of the 30 measurement stations for one or more of the depth profiles exceeds 500 cone penetrometer units (cpu), the beach will be tilled to a depth of 36 inches before the onset of the sea turtle nesting season. Compaction will be monitored for three years after project completion. The Jacksonville Field Office shall be provided with an annual report of the beach compaction testing.

3. During the marine turtle nesting season (April 1 to October 30), construction pipes which are placed on the beach shall be placed perpendicular to the shoreline. Temporary storage of pipes and equipment shall be off the beach to the maximum extent possible or as far landward as possible without compromising the integrity of the dune system if temporary storage on the beach is necessary.

4. During the sea turtle nesting season (April 1 to October 30), all lighting associated with the project shall be limited to the immediate area of active construction only. Such lighting shall be the minimal lighting necessary to comply with safety requirements, and shall incorporate reduced wattage, downlight, special fixtures and screens to minimize illumination of the nesting beach and nearshore waters. Lighting on offshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement of lights to avoid excessive illumination of the water, while meeting Coast Guard requirements. Shielded low pressure sodium vapor lights are highly recommended for all lights on the beach or on offshore equipment that cannot be eliminated.

5. The applicant shall monitor the nourished beach in order to detect if an escarpment or beach compaction are forming for three years after project completion. If an escarpment forms or if the nesting beach becomes compacted, the applicant shall take corrective action to remove the escarpment. An annual report shall be submitted to the Service on October 1 for each of the three years the study is in progress.

If an escarpment greater than 12 inches high, longer than 30 yards, and with an average compaction exceeding 500 cpu forms prior to the sea turtle nesting season, the applicant shall level the escarpment prior to the nesting season. Alternatively, the applicant may arrange for the Service to visit the project site immediately prior to the nesting season. If the Service determines that the escarpment may hinder nesting turtles, the applicant will level the escarpment immediately.

If an escarpment develops during the turtle nesting season, corrective action will take place only during daylight hours. The applicant should contact the Jacksonville Field Office (904/232-2580) for further coordination prior to work in order to avoid impacting turtle nests.

6. The material deposited on the beach must meet Florida Department of Environmental Protection standards for beach quality sand which is suitable for sea turtle nesting, successful incubation and hatchling emergence.

7. The applicant shall arrange a meeting with the contractor, the Service and the Florida Department of Natural Resources, 90 days prior to beginning work on this project. This will allow agencies to explain the turtle protection measures to the contractor.

8. A report describing the actions taken to implement the terms and conditions will be submitted to this office within 60 days of completion of the proposed work for each year when activity has occurred. This report will include dates of actual construction activities, names and qualifications of personnel involved in nest surveys and relocation activities, descriptions and location of hatcheries, nest survey and relocation results and hatching success of nests.

9. In the event a turtle nest is dug up during beach construction activities, the Florida Department of Natural Resources permitted individual responsible for nest relocation on the project should be notified for removal of the nest to the beach hatchery.

CONSERVATION RECOMMENDATIONS

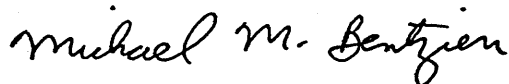
Conservation recommendations are suggestions of the Service regarding discretionary measures to reduce or avoid adverse effects of a proposed action on listed species. Conservation recommendations may also include suggestions on ways for the Federal agency to meet its responsibility to conserve listed species under Section 7(a)(1) of the Act.

1. Sea oats or other appropriate dune vegetation should be planted on nourished beaches to enhance dune restoration. The DEP, Division of Beaches and Shores, can provide technical assistance on the specifications for design and implementation.

2. We recommend that a three-year study be implemented to assess impacts on nesting and hatching success. The design of the study should be coordinated with the Service and DEP.

This concludes formal consultation on the action outlined in the request. As provided in 50 CFR Section 402.16, reinitiation of formal consultation is required when discretionary Federal agency involvement or control over the action has been retained and if: (1) the amount or extent of incidental take is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this Biological Opinion, (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this Biological Opinion, or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

Sincerely yours,

A handwritten signature in cursive script that reads "Michael M. Bentzien".

Michael M. Bentzien
Assistant Field Supervisor

cc

Bob Joseph, Big Talbot GeoPark

APPENDIX III

COASTAL ZONE MANAGEMENT CONSISTENCY DETERMINATION

**Florida Coastal Zone Management Program
Federal Consistency Evaluation Procedures**

1. Chapter 161, Beach and Shore Preservation.

The intent of the coastal construction permit program established by this chapter is to regulate construction projects located seaward of the line of mean high water and which might have an effect on natural shoreline processes.

Response: The proposed work project is not seaward of the mean high water line and would not affect shorelines or shoreline processes. Information will be submitted to the state for a permit in compliance with this chapter.

2. Chapters 186 and 187, State and Regional Planning.

These chapters establish the State Comprehensive Plan which sets goals that articulate a strategic vision of the State's future. Its purpose is to define in a broad sense, goals, and policies that provide decision-makers directions for the future and provide long-range guidance for an orderly social, economic and physical growth.

Response: The proposed work has been coordinated with the State without objection.

3. Chapter 252, Disaster Preparation, Response and Mitigation.

This chapter creates a state emergency management agency, with the authority to provide for the common defense; to protect the public peace, health and safety; and to preserve the lives and property of the people of Florida.

Response: The dredging and disposal of material on DU-7 Fanning Island and DU-20 West Central Black Hammock Island will protect the waterway which could be used in emergency situations for transportation purposes. Therefore, this work would be consistent with the efforts of Division of Emergency Management.

4. Chapter 253, State Lands.

This chapter governs the management of submerged state lands and resources within state lands. This includes archeological and historical resources;

water resources; fish and wildlife resources; beaches and dunes; submerged grass beds and other benthic communities; swamps, marshes and other wetlands; mineral resources; unique natural features; submerged lands; spoil islands; and artificial reefs.

Response: The maintenance dredging the Atlantic Intracoastal waterway has been previously accomplished. The use of these State lands has been approved by the State. The proposal would comply with the intent of this chapter.

5. Chapters 253, 259, 260, and 375, Land Acquisition.

This chapter authorizes the state to acquire land to protect environmentally sensitive areas.

Response: Since the affected property already is in public ownership, this chapter would not apply.

6. Chapter 258, State Parks and Aquatic Preserves.

This chapter authorizes the state to manage state parks and preserves. Consistency with this statute would include consideration of projects that would directly or indirectly adversely impact park property, natural resources, park programs, management or operations.

Response: The proposed work would not affect any state parks or preserves, and would, therefore, be consistent with this chapter.

7. Chapter 267, Historic Preservation.

This chapter establishes the procedures for implementing the Florida Historic Resources Act responsibilities.

Response: The maintenance of existing waterway and use of the disposal areas has been coordinated with the State Historic Preservation Officer. Procedures will be implemented to avoid impacts on unknown archeological resources within the waterway. Therefore, the work will be consistent with the goals of this chapter.

8. Chapter 288, Economic Development and Tourism

This chapter directs the state to provide guidance and promotion of beneficial development through encouraging economic diversification and promoting tourism.

Response: The maintenance dredging of the waterway encourages commercial and recreational use which provides economic benefits to the area. Therefore, the work would be consistent with the goals of this chapter.

9. Chapters 334 and 339, Public Transportation.

This chapter authorizes the planning and development of a safe balanced and efficient transportation system.

Response: The maintenance dredging of the waterway promotes commercial navigation within the area.

10. Chapter 370, Saltwater Living Resources.

This chapter directs the state to preserve, manage and protect the marine, crustacean, shell and anadromous fishery resources in state waters; to protect and enhance the marine and estuarine environment; to regulate fishermen and vessels of the state engaged in the taking of such resources within or without state waters; to issue licenses for the taking and processing products of fisheries; to secure and maintain statistical records of the catch of each such species; and, to conduct scientific, economic, and other studies and research.

Response: The maintenance dredging of this area would not adversely affect saltwater living resources. Based on the overall impacts of the work, the work is consistent with the goals of this chapter.

12. Chapter 372, Living Land and Freshwater Resources.

This chapter establishes the Game and Freshwater Fish Commission and directs it to manage freshwater aquatic life and wild animal life and their habitat to perpetuate a diversity of species with densities and distributions which provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.

Response: No living land or freshwater resources would be impacted by the maintenance dredging. Therefore, the work would comply with the goals of this chapter.

13. Chapter 373, Water Resources.

This chapter provides the authority to regulate the withdrawal, diversion, storage, and consumption of water.